

AMERICAN DENDROBATID GROUP

Newsletter No. 6

November-December 1992

The purpose of the ADG is to develop better communication between Dendrobatid breeders in North America. It is designed to keep dendrobatid frog breeders in better communication with one another. We hope that with this communication we will be able to solve some of the problems which confront us all. This newsletter will appear bimonthly and will cost \$5.00 annually to cover printing and mailing.

Subscriptions, letters, comments, etc. should be sent to Charles Powell (2932 Sunburst Dr., San Jose, CA 95111 Tel.: (408) 363-0926) or Terry Chatterton (8007 Ridge Rd., Arvada, CO 80002 Tel.: (303) 340 7647).

CULTURING *Collembola* (SPRINGTAILS)

Jack Frenkel
New Mexico, USA

Appropriate food for small dendrobatids, such as recently metamorphosed *D. reticulatus* is difficult to obtain. Richard Loomis and I have bred springtails, *Sinella curviseta* (Collembola) for several years as food for nymphal and adult chiggers, and found that they are eaten by dendrobatid frogs. The containers consisted of 6-8 oz. plastic jars, lined with plaster of Paris, containing about 20% pulverized charcoal, and fitted with a good lid. The plaster holds the moisture, which should be high enough to condense on the inside of the closed lid. To achieve a layer of plaster of sufficient thickness, choose 2 plastic jars of identical shape but differing in size, so that when the smaller jar is nestled in the larger one, a quarter inch space remains, which is filled with the thick plaster mixture and left to set. After prying out the smaller jar, the larger jar coated on the inside with plaster of Paris should be washed in a light stream of tap water for 24 hours, followed by draining and

lightly drying it. Apply the lid and store the jar overnight to check for the formation of drops of water of condensation on the lid. If present, you can add the collembola. If the lid is dry, add water to the plastic. Our collembola fed on dry yeast, with occasional Tetramin® flakes (dried fish food). At weekly or more frequent intervals, unconsumed food, often mouldy, is removed, and replaced with fresh food. Every 4 months a fresh culture should be started; often the old one can be reused after rinsing the plaster in water for about a week. One can find collembola in moist places, under rocks, flower pots, and in decaying vegetation. Depending from where they were encountered, one should also offer some of the presumed food present.

CULTURING *Collembola* (SPRINGTAILS)¹

¹Reprinted with permission from the
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Malcolm Peaker
Ary, Scotland

Springtail cultures were on sale at the Dutch Frog Day in May and I bought one. It was set up in a square plastic box (approximately 10x10 cm) containing thin, damp plates of tree-fern fibre. I was told to feed the culture sparingly with ground-up infusoria tablets. Being unable to get these I used Liquifry for live-bearers, just adding a few drops to the medium every few days. Since the culture thrived I subcultured, using a similar set up but since my tree-fern contained a lot more loose material than that in the original culture, I washed it for several days in tap water. I treated this culture in the same way and it too has produced great numbers of springtails.

I then realized this was probably not the way entomologists culture springtails and my first stop was my 1957 edition of Immes, *A General Textbook of Entomology*, which, coming from a school of zoology was

regards everything below a fish as a plant, has not been opened in anger since 1965. I then searched the literature and found the best culture method. Basically it is very simple but the source of the activated charcoal is important because too low or too high a pH and the culture dies off.

Springtails are cultured on a substrate of plaster-of-Paris and activated charcoal. I made up a mix as follows: 9 parts by weight of plaster-of-Paris plus 1 part of activated charcoal (DARCO G60, BDH) were mixed with water to make a smooth paste. This was added to a margarine tub to a depth of 2 cm. The springtails were introduced and dried, granulated yeast added as food every few days. Dried grass is also added and removed when soiled. Instead of yeast a vitamin-mineral mix (SA 37) is sometimes supplied especially before using the springtails to feed young frogs. The margarine tub has no ventilation holes and condensation is always present on the lid. A little water is added to one corner of the substrate occasionally.

New Food Source

ARBICO (P.O. Box 4247 CRB, Tucson, AZ 85738-1247 Tel.: 1-800-827-2847) offers a variety of captive breed insects to use as food. Write or call for information and prices on their "Delectables" catalog.

Want Adds: For Sale or Trade

<i>Dendrobates truncatus</i>	\$50 ea
<i>D. azureiventris</i>	\$50 ea

Terry Chatterton
8007 Ridge Road
Arvada, CO 80002

Dendrobates auratus 'Costa Rica'

Ed Oshaben
4154 Lincoln Ave..
Willoughby, Ohio 44094

Dendrobates tinctorius 'Yellow Back'
(1, year old frog) \$100

Charles Powell
2932 Sunburst Dr.
San Jose, CA 95111
(408) 363 0926

New Literature

- Eschment, Jürgen, 1987, *Dendrobates pumilio* O. Schmidt. *Sauria*, 9(4): 89-92.
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- Ivan Sazima, Marcio Martins e, 1989, Dendrobatideos Cores e venenos. *Ciência Hoje*, 9(53): 34-38.
- Jungfer, Karl-Heinz, 1989, Pfeilgiftfrösche der Gattung *Epipedobates* mit rot granuliertem Rücken aus dem Oriente von Ecuador und Peru. *Salamandra*, 25(2): 81-98.
- Krintler, Karsten, 1987, *Dendrobates azureus* Hoogmoed. *Sauria*, 9(2): 77-80.
- Lescure, Jean, 1976, Étude de deux têtards de *Phyllobates* (Dendrobatidae): *P. femoralis* (Boulenger) et *P. pictus* (Bibron) [Description of two *Phyllobates* tadpoles (Dendrobatidae): *P. femoralis* (Boulenger) and *P. pictus* (Bibron)]. *Bulletin de la Société zoologique de France*, 101(2): 299-306.
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- Schulte, Rainer, 1989, Nueva especie de rana venenosa del género *Epipedobates* registrada en la Cordillera Oriental, departamento de San Martín. *Boletín de Lima*, 63: 41-46.
- Schulte, Rainer, 1990, Redescubrimiento y redefinición de *Dendrobates mysteriosus* (Myers, 1982) de la Cordillera del Condor. *Boletín de Lima*, 70: 57-68.

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